



## SEQUENCE LISTING

E3

<110> MANDELKOW ET AL.

<120> NOVEL TOOLS FOR THE DIAGNOSIS AND TREATMENT OF ALZHEIMER'S DISEASE

<130> 28384/36668

<140> US 09/640,737

<141> 2000-08-17

<150> US 08/244,603

<151> 1994-06-03

<160> 37

<170> PatentIn version 3.1

<210> 1

<211> 441

<212> PRT

<213> Homo sapiens

<400> 1

Met Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Asp His Ala Gly  
1 5 10 15

Thr Tyr Gly Leu Gly Asp Arg Lys Asp Gln Gly Gly Tyr Thr Met His  
20 25 30

Gln Asp Gln Glu Gly Asp Thr Asp Ala Gly Leu Lys Glu Ser Pro Leu  
35 40 45

Gln Thr Pro Thr Glu Asp Gly Ser Glu Glu Pro Gly Ser Glu Thr Ser  
50 55 60

Asp Ala Lys Ser Thr Pro Thr Ala Glu Asp Val Thr Ala Pro Leu Val  
65 70 75 80

Asp Glu Gly Ala Pro Gly Lys Gln Ala Ala Gln Pro His Thr Glu  
85 90 95

Ile Pro Glu Gly Thr Thr Ala Glu Glu Ala Gly Ile Gly Asp Thr Pro  
100 105 110

Ser Leu Glu Asp Glu Ala Ala Gly His Val Thr Gln Ala Arg Met Val  
115 120 125

Ser Lys Ser Lys Asp Gly Thr Gly Ser Asp Asp Lys Lys Ala Lys Gly  
130 135 140

Ala Asp Gly Lys Thr Lys Ile Ala Thr Pro Arg Gly Ala Ala Pro Pro  
145 150 155 160

Gly Gln Lys Gly Gln Ala Asn Ala Thr Arg Ile Pro Ala Lys Thr Pro  
 165 170 175  
 Pro Ala Pro Lys Thr Pro Pro Ser Ser Gly Glu Pro Pro Lys Ser Gly  
 180 185 190  
 Asp Arg Ser Gly Tyr Ser Ser Pro Gly Ser Pro Gly Thr Pro Gly Ser  
 195 200 205  
 Arg Ser Arg Thr Pro Ser Leu Pro Thr Pro Pro Thr Arg Glu Pro Lys  
 210 215 220  
 Lys Val Ala Val Val Arg Thr Pro Pro Lys Ser Pro Ser Ser Ala Lys  
 225 230 235 240  
 Ser Arg Leu Gln Thr Ala Pro Val Pro Met Pro Asp Leu Lys Asn Val  
 245 250 255  
 Lys Ser Lys Ile Gly Ser Thr Glu Asn Leu Lys His Gln Pro Gly Gly  
 260 265 270  
 Gly Lys Val Gln Ile Ile Asn Lys Lys Leu Asp Leu Ser Asn Val Gln  
 275 280 285  
 Ser Lys Cys Gly Ser Lys Asp Asn Ile Lys His Val Pro Gly Gly Gly  
 290 295 300  
 Ser Val Gln Ile Val Tyr Lys Pro Val Asp Leu Ser Lys Val Thr Ser  
 305 310 315 320  
 Lys Cys Gly Ser Leu Gly Asn Ile His His Lys Pro Gly Gly Gly Gln  
 325 330 335  
 Val Glu Val Lys Ser Glu Lys Leu Asp Phe Lys Asp Arg Val Gln Ser  
 340 345 350  
 Lys Ile Gly Ser Leu Asp Asn Ile Thr His Val Pro Gly Gly Gly Asn  
 355 360 365  
 Lys Lys Ile Glu Thr His Lys Leu Thr Phe Arg Glu Asn Ala Lys Ala  
 370 375 380  
 Lys Thr Asp His Gly Ala Glu Ile Val Tyr Lys Ser Pro Val Val Ser  
 385 390 395 400  
 Gly Asp Thr Ser Pro Arg His Leu Ser Asn Val Ser Ser Thr Gly Ser  
 405 410 415  
 Ile Asp Met Val Asp Ser Pro Gln Leu Ala Thr Leu Ala Asp Glu Val  
 420 425 430

Ser Ala Ser Leu Ala Lys Gln Gly Leu  
435 440

<210> 2  
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<212> PRT  
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<220>  
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<400> 2

Lys Glu Ser Pro Leu Gln  
1 5

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Tyr Ser Ser Pro Gly Ser Pro  
1 5

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Pro Gly Ser Pro Gly Thr  
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Tyr Ser Ser Pro Gly Ser Pro Gly Thr Pro Gly Ser  
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Pro Lys Ser Pro Ser Ser  
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Tyr Lys Ser Pro Val Val Ser  
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Gly Asp Thr Ser Pro Arg His  
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Met Val Asp Ser Pro Gln Leu  
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Pro Leu Gln Thr Pro Thr Glu  
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Leu Lys Glu Ser Pro Leu Gln Thr Pro Thr Glu Asp  
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Ala Lys Ser Thr Pro Thr Ala  
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Ile Gly Asp Thr Pro Ser Leu  
1 5

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Lys Ile Ala Thr Pro Arg Gly Ala  
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Pro Ala Lys Thr Pro Pro Ala  
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<210> 16  
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Ala Pro Lys Thr Pro Pro Ser  
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<210> 17

<211> 13

<212> PRT

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Pro Ala Lys Thr Pro Pro Ala Pro Lys Thr Pro Pro Ser  
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<210> 18

<211> 7

<212> PRT

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Ser Pro Gly Thr Pro Gly Ser  
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<210> 19

<211> 7

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Arg Ser Arg Thr Pro Ser Leu  
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<210> 20

<211> 7

<212> PRT

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<223> Synthetic peptide

<400> 20

Ser Leu Pro Thr Pro Pro Thr  
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<210> 21

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Arg Ser Arg Thr Pro Ser Leu Pro Thr Pro Pro Thr  
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<210> 22  
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Val Val Arg Thr Pro Pro Lys  
1 5

<210> 23  
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<212> PRT  
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Val Val Arg Thr Pro Pro Lys Ser Pro Ser Ser Ala  
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<210> 24  
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<212> PRT  
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<400> 24

Lys Ile Gly Ser Thr Glu Asn Leu Lys  
1 5

<210> 25  
<211> 9  
<212> PRT  
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<400> 25

Lys Cys Gly Ser Lys Asp Asn Ile Lys  
1 5

<210> 26  
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<400> 26

Lys Cys Gly Ser Leu Gly Asn Ile His  
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<210> 27  
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<400> 27

Lys Ile Gly Ser Leu Asp Asn Ile Thr His  
1 5 10

<210> 28  
<211> 23  
<212> PRT  
<213> Homo sapiens

<220>  
<223> Q244-E372 of htau23

<400> 28

Ser Ser Pro Gly Ser Pro Gly Thr Pro Gly Ser Arg Ser Arg Thr Pro  
1 5 10 15

Ser Leu Pro Thr Pro Pro Thr  
20

<210> 29  
<211> 15  
<212> PRT  
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<220>  
<223> Synthetic peptide

<400> 29

Ser Gly Tyr Ser Ser Pro Gly Ser Pro Gly Thr Pro Gly Ser Arg  
1 5 10 15

<210> 30  
<211> 19  
<212> PRT  
<213> Homo sapiens

<220>  
<223> Microtubule binding repeat

<400> 30



Val Lys Ser Lys Ile Gly Ser Thr Glu Asn Leu Lys His Gln Pro Gly  
1 5 10 15

Gly Gly Lys

<210> 31  
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<212> PRT  
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<220>  
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<400> 31

Lys Asp Gln Gly Gly Tyr Thr Met His Gln Asp Gln Glu Gly Asp Thr  
1 5 10 15

Asp Ala Gly Lys Leu Lys Glu Ser Pro Leu Gln  
20 25

<210> 32  
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<220>  
<223> 191-209 of htau40

<400> 32

Ser Gly Asp Arg Ser Gly Tyr Ser Ser Pro Gly Ser Pro Gly Thr Pro  
1 5 10 15

Gly Ser Arg

<210> 33  
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<400> 33

Thr Pro Pro Lys Ser Pro Ser Ser Ala Lys  
1 5 10

<210> 34  
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<212> PRT  
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<220>  
<223> 396-406 of htau40

<400> 34

Ser Pro Val Val Ser Gly Asp Thr Ser Pro Arg  
1 5 10

<210> 35  
<211> 21  
<212> PRT  
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<220>  
<223> 386-406 of htau40

<400> 35

Thr Asp His Gly Ala Glu Ile Val Tyr Lys Ser Pro Val Val Ser Gly  
1 5 10 15

Asp Thr Ser Pro Arg  
20

<210> 36  
<211> 22  
<212> PRT  
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<220>  
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<400> 36

His Leu Ser Asn Val Ala Ala Thr Gly Ala Ile Asp Met Val Asp Ser  
1 5 10 15

Pro Gln Leu Ala Thr Leu  
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<210> 37  
<211> 7  
<212> PRT  
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<220>  
<223> 260-266 of htau40

<400> 37

Ile Gly Ser Thr Glu Asn Leu  
1 5